

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference LPPT-26PC	FOR FURTHER ACTION	See item 4 below
International application No. PCT/US2005/002539	International filing date (<i>day/month/year</i>) 28 January 2005 (28.01.2005)	Priority date (<i>day/month/year</i>) 30 January 2004 (30.01.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant L & P PROPERTY MANAGEMENT COMPANY		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).
2. This REPORT consists of a total of 6 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.
3. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input checked="" type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

	Date of issuance of this report 31 July 2006 (31.07.2006)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	Authorized officer Nora Lindner e-mail: pt02@wipo.int

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 02 MAR 2006

PCT/PO PCT

To:
JOSEPH R. JORDAN
WOOD, HERRON & EVANS, LLP
2700 CAREW TOWER
CINCINNATI, OH 45202

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference LPPT-26PC		Date of mailing (day/month/year) 27 FEB 2006
International application No. PCT/US05/02539		FOR FURTHER ACTION See paragraph 2 below
International filing date (day/month/year) 28 January 2005 (28.01.2005)	Priority date (day/month/year)	
International Patent Classification (IPC) or both national classification and IPC IPC(7): B41L 39/00; B41J 11/42 and US Cl.: 347/16, 19; 101/484, 483; 400/582		
Applicant CODOS RICHARD N.		

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Date of completion of this opinion 15 January 2006 (15.01.2006)	Authorized officer <i>Stephen D Meier for</i> STEPHEN D MEIER Telephone No. (571)272-1562
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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US05/02539

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form.
- ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US05/02539

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>12 and 14-16</u>	YES
	Claims <u>1-11, 13 and 17-19</u>	NO
Inventive step (IS)	Claims <u>1-11, 13, 17-19</u>	YES
	Claims <u>12 and 14-16</u>	NO
Industrial applicability (IA)	Claims <u>1-19</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

1. Claims 1-11, 13, 17-19/13 lack an inventive step under PCT Article 33(3) as being obvious over Duchovne (US 6296403) in view of Walker et al. (US 6158344).

Duchovne discloses an ink jet printing apparatus comprising:

a frame (FIG. 4) and a bridge extending transversely across the frame and defining a printing apparatus (FIG. 4, element 60);
a motion system configured to move the printhead longitudinally relative to the frame and includes a linear servo (Fig. 4: Linear motor 54 moves the printhead 52 across the bridge 60);
a feed system configured to advance a substrate (FIG. 4-5, element 46) longitudinally through the printing station (FIG. 4, element 44);

a printhead moveable transversely across the bridge to print a row of the image across the substrate at the printing station (FIG. 4: The printhead 52 moves along the direction 57 to print a row on media 46);

a controller operable to activate the feed system to perform an indexing motion of the substrate longitudinally through the printing station (FIG. 5);

Duchovne, however, does not disclose a web position measurement device operable to measure and communicate to the controller a signal corresponding to an actual distance moved by the substrate during the indexing motion and the controller being operable to activate the motion system to move the printhead longitudinally a distance corresponding to the difference (less than or greater than) between actual distance move by the substrate during the indexing motion and a predetermined distance, wherein the web position measurement device includes an encoder responsive to the motion of the substrate relative thereto and being fixed to the frame or the bridge.

Walker et al. discloses a method of calibrating a media advance mechanism in a printer including a media sensor, having an encoder fixed to a frame (FIG. 4, element 46), to measure and communicate to a controller a signal corresponding to an actual distance moved by the media during the indexing motion and the controller being operable to activate the motion system to move the printhead longitudinally a distance corresponding to the difference between actual distance move by the substrate during the indexing motion and a predetermined distance (FIG. 4, column 2, lines 40-45; column 4, lines 1-65; column 6, lines 40-47).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify Duchovne's printing apparatus to include the media advance sensor as suggested by Walker et al. The motivation of doing so would have been to be able to detect errors in media advance in order to calibrate the media advance mechanism as taught by Walker et al. (column 4, lines 50-65).

2. Claims 12, 16, 17/16, 18-19/17/16 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest wherein the controller is operable to activate the motion system to move the printhead longitudinally relative to the bridge to the distance corresponding to the difference between the actual distance and the predetermined distance.

3. Claims 14-15, 17/14-15, 18/14-15, 19/14-15 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest wherein the controller is operable to activate the motion system to move the bridge longitudinally relative to the frame to the distance corresponding to the difference between the actual distance and the predetermined distance.

4. Claims 1-19 meet the criteria set out in PCT Article 33(4), and thus the claims meet industrial applicability because the subject matter claimed can be made or used in industry.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US05/02539

Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

Application No. <u>Patent No.</u>	Publication date <u>(day/month/year)</u>	Filing date <u>(day/month/year)</u>	Priority date (valid claim) <u>(day/month/year)</u>
US 6158344	12/12/2000	03/12/1998	
US 4485982	04/12/1984	24/11/2982	
US 4734868	29/03/1988	21/07/1986	
US 6454474	24/09/2002	14/11/2001	27/04/2000
US 6296403	02/10/2001	28/07/1999	

2. Non-written disclosures (Rules 43bis.1 and 70.9)

<u>Kind of non-written disclosure</u>	Date of non-written disclosure <u>(day/month/year)</u>	Date of written disclosure referring to non-written disclosure <u>(day/month/year)</u>
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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US05/02539

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the questions whether the claims are fully supported by the description, are made:

Claim 13 is objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because claim 13 indefinite for the following reason(s): The claim recites the limitation "the printhead" on line 4 with insufficient antecedent basis.

PATENT COOPERATION TREATY

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PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

JORDAN, Joseph, R.
Wood, Herron & Evans, L.L.P.
2700 Carew Tower
Cincinnati, OH 45202
United States of America

Date of mailing (day/month/year) 10 August 2006 (10.08.2006)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference LPPT-26PC	
International application No. PCT/US2005/002539	International filing date (day/month/year) 28 January 2005 (28.01.2005)

1. The following indications appeared on record concerning:

☒ the applicant ☒ the inventor ☐ the agent ☐ the common representative

Name and Address QUATTROCIOCCHI, Angelo 120 King High Drive Thornhill, Ontario L4J-3N4 Canada	State of Nationality US	State of Residence US
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person ☐ the name ☐ the address ☒ the nationality ☒ the residence

Name and Address QUATTROCIOCCHI, Angelo 120 King High Drive Thornhill, Ontario L4J-3N4 Canada	State of Nationality CA	State of Residence CA
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

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21.08.2006

TEAM 14

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input checked="" type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input type="checkbox"/> the elected Offices concerned
<input type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 338.89.65	Authorized officer Anman QIU Telephone No. (41-22) 338 9098
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